

WHAT IS CLAIMED:

1. A compressor assembly, comprising:
a compressor having a known vibration frequency when operated at normal operating parameters; and
an electric box assembly comprising a frame member mounted to the compressor for containing electrical components related to the compressor, the electric box assembly having a natural frequency which is different from the known vibration frequency.
2. The assembly of claim 1, wherein the natural frequency of the electric box assembly is at least 10% higher than the known vibration frequency.
3. The assembly of claim 2, wherein the natural frequency of the electric box assembly is between about 10% and about 80% higher than the known vibration frequency.
4. The assembly of claim 1, wherein the frame member comprises a substantially flat plate having side edges, and further comprises two side flanges arranged substantially perpendicular relative to the flat plate, the flat plate and the side flanges each having rear edges which are mounted adjacent to the compressor.
5. The assembly of claim 4, wherein corners are defined by at least one of the flat plate and side flanges, and further comprising indentations along the corners for stiffening the frame member.

6. The assembly of claim 4, wherein the side flanges have first portions which are substantially parallel and second portions angled toward each other.

7. The assembly of claim 6, wherein corners are defined between the first portions and the second portions, and further comprising indentations along the corners for stiffening the frame member.

8. The assembly of claim 1, wherein the electric box assembly further comprises electric components, and wherein the frame member and the electric components together define the natural frequency of the electric box assembly.

9. A method for designing an electric box assembly for a compressor assembly, comprising the steps of:

determining a known vibration frequency for a compressor at normal operating parameters; and

providing an electric box assembly comprising a frame member for supporting electrical components related to the compressor, wherein the electric box assembly has a natural frequency which is different from the known vibration frequency of the compressor.

10. The method of claim 9, wherein the natural frequency of the electric box assembly is at least 10% higher than the known vibration frequency.

11. The method of claim 9, wherein the natural frequency of the electric box assembly is between about 10% and about 80% higher than the known vibration frequency.

12. The method of claim 9, wherein the frame member comprises a substantially flat plate having side edges, and further comprises two side flanges arranged substantially perpendicular relative to the flat plate, the flat plate and the side flanges each having rear edges which are mounted adjacent to the compressor.

13. The method of claim 9, wherein the providing step comprises:

electric box assembly configuration; evaluating expected natural frequency of the starting electric box assembly configuration; and modifying the starting electric box assembly to provide the natural frequency which is different from the known vibration frequency of the compressor.